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09/718,371	11/24/2000	Chang-Woong Yoo	P56218	3060
7590	12/22/2003		EXAMINER	
Robert E. Bushnell Suite 300 1522 K Street, N.W. Washington, DC 20005			SHRADER, LAWRENCE J	
			ART UNIT	PAPER NUMBER
			2124	5
DATE MAILED: 12/22/2003,				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/718,371	YOO, CHANG-WOONG	
	Examiner	Art Unit	
	Lawrence Shrader	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 1 October 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-22 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) The translation of the foreign language provisional application has been received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____.
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) Other: _____

DETAILED ACTION

1. This action is in response to the amendment filed on October 1, 2003.

Specification

2. The objection to the abstract of the disclosure because the length exceeds 150 words is withdrawn in view of the Applicant's amendment filed on October 1, 2003.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Colosso, U.S. Patent 6,169,976.

In regard to claim 6:

Colosso discloses a standard computer system using computer product information and writing product information to memory when the operating system is installed:

It is assumed that an operating system program is a software program that is installed and run on an electronic computer system.

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"Making a user manually input the product key information corresponding to a procedure of installing the operating system program;" Colosso discloses that a user enters the program key information when initially installing the software program (column 9, lines 2 – 6; column 9, lines 40 – 50).

"Executing a product key information writing program;" Colosso discloses an installation program that writes the key information (column 9, lines 40 – 50).

"Writing the manually input product key information into the auxiliary memory." The relevant software products in the Colosso invention are stored on auxiliary memory (physical media – disk; see column 18, lines 6 – 10).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4, 5, and 8 - 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colosso, U.S. Patent 6,169,976 in view of Markus et al., U.S. Patent 6,490,601 (hereinafter referred to as Markus).

In regard to claim 1:

Colosso discloses a computer system using an operating system program containing product key information:

It is assumed that an operating system program is a software program that is installed and run on an electronic computer system.

“Storing means for storing the operating system program;” Colosso teaches a means to store the software program on the computer system (column 6, lines 39 – 44, 55 – 59; column 8, lines 55 – 64).

“Memory means for storing the product key information of the operating system...input by user, when the operating system is installed in the storing means;” Colosso discloses that the user installs the software product onto the computer system (containing a memory means – see Figure 1) wherein the activation key is stored (column 17, lines 20 – 23) and the user is required to enter key information (column 9, lines 2 – 6, column 9, lines 40 - 50).

“Writing means for writing the product key information in the memory means;” Colosso discloses that a new activation key replaces a previously stored key (column 17, lines 20 – 23).

“Input means for reading out the product key information and inputting the read-out product key information in an information input window...” Colosso discloses a pop-up window for the customer to enter a new activation key that is decrypted to match the key information, but does not teach that key information is input into the pop-up window from memory. However, Markus discloses automatic insertion of data read from memory into electronic forms and compares data from the user input with that stored in memory (column 5, lines 29 – 44).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify pop-up input window of the Colosso invention, which also contains a decryption means acting as a key matching function, with the auto form fill feature of the Markus invention, which also has an input information compare function to match input information, because one

skilled in the art would want to maximize the speed and accuracy of the software program installation as taught by Colosso by automatically filling the correct key information rather than requiring the user to enter the information and possibly make a mistake.

In regard to claim 2, incorporating the rejection of claim 1:

“...the storing means is a boot device.” Colosso discloses the system as a standard computer system containing a storage means with a boot device (see Figure 1).

In regard to claim 4, incorporating the rejection of claim 1:

“...the writing means is a program installed in the storing means.” Colosso discloses an installation program that writes the key information to memory (column 8, lines 60 – 66).

In regard to claim 5, incorporating the rejection of claim 1:

“...the input means is a program.” Colosso discloses an installation program that writes the key information to memory (column 8, lines 60 – 66).

In regard to claim 8:

Colosso teaches a configuration system that queries the user for appropriate information used to configure the hardware and/or the software when the software program is reinstalled:

“reading out the product key information from the auxiliary memory;” Colosso discloses that the activation key, which is compared with the entered key in the decryption step, is read from the from memory (column 17, lines 60 – 65).

“checking whether the read-out product key information is matched... ”, The decryption step on Colosso inherently and effectively matches the read-out key information (column 17, lines 60 – 65).

"if matched, automatically inputting the product key information in a product key information window displayed on a screen...", Colosso does not teach automatically inputting key information in an information window. However, Markus discloses automatic insertion of data read from memory into electronic forms and compares data from the user input with that stored in memory (column 5, lines 29 – 44). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify pop-up input window of the Colosso invention, which also contains a decryption means acting as a key matching function, with the auto form fill feature of the Markus invention, which also has an input information compare function to match input information, because one skilled in the art would want to maximize the speed and accuracy of the software program installation as taught by Colosso by automatically filling the correct key information rather than requiring the user to enter the information and possibly make a mistake.

In regard to claim 9, incorporating the rejection of claim 8:

"...program stored on a CD-ROM in a CD-ROM drive." See Colosso column 12, lines 49 – 53.

In regard to claim 10, incorporating the rejection of claim 8:

"...program stored on a hard disk of a recovery disk drive." See Colosso column 5, lines 15 – 42 for various computer readable media available in the Colosso invention.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colosso, U.S. Patent 6,169,976 in view of Markus et al., U.S. Patent 6,490,601, as applied to claim 1 above, and further in view of Ledain et al., U.S. Patent 6,021,408 (hereinafter referred to as Ledain).

In regard to claim 3, incorporating the rejection of claim 1:

"...the memory means further stores information indicating the type of operating system program that was installed and indicating a compress conversion process of the product key information."

Colosso teaches storage of product information entered by the user, but neither Colosso nor Markus teaches a compress conversion process of any information. However, Ledain teaches compression of file and system information in a data storage subsystem (column 5, lines 37 – 61; column 6, lines 44 – 54). Operating system information and other application software information, including the product information, would be transparently compressed. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the software configuration system of Colosso with the compression feature of the Ledain invention, because this modification would allow more information to be stored in a given space, thus allowing more efficient use of memory.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colosso, U.S. Patent 6,169,976, as applied to claim 6 above, in view of Miura, U.S. Patent 6,021,408.

In regard to claim 7, incorporating the rejection of claim 6:

"...deleting the product key information writing program after the product key information is written into the auxiliary memory." Colosso teaches a configuration system that queries the user for appropriate information used to configure the software, but does not teach deletion of the writing program after the product information is written to memory. However, Miura teaches the deletion of a program after execution (column 4, lines 29 – 33). Therefore, it

would have been obvious to one skilled in the art at the time the invention was made to combine the configuration system of Colosso with the function of deleting a program after execution as taught by Miura, because this combination provides another level of security to the Colosso invention by preventing an unauthorized installation in the case where only one installation is allowed.

9. Claims 11, 12, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colosso, U.S. Patent 6,169,976 in view of Markus et al., 6,490,601, and further in view of Sobel, U.S. Patent 6,205,558.

In regard to claim 11:

"manually inputting...product key information...input into a product key input window..." Colosso discloses that a user enters the program key information via an input window when installing the software program (column 9, lines 2 – 6; column 9, lines 40 – 50; column 15, lines 35 – 44).

"executing a key input program..." Colosso executes an installation program with a key input window (column 17, lines 55 – 61).

"executing a recovery program ..." Colosso teaches a software configuration program, but neither Colosso nor Markus teaches the execution of a recovery program if the operating system fails. However, Sobel teaches the execution of a recovery program (column 4, lines 14 – 25). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the configuration program taught by Colosso with the recovery program of Sobel, because whenever one configures or reconfigures a system there is always the possibility

of error or an inadvertent reset. In that scenario, one skilled in the art would find it beneficial to provide a recovery procedure, which the Sobel provides for the Colosso system in order to restore the system to the state prior to the attempt to load the software program.

“read out said product key information from said CMOS RAM...;” Colosso discloses that previously stored product key information is read from memory (column 17, lines 61 – 65).

“comparing said product key information read out...;” The decryption step on Colosso inherently and effectively matches the read-out key information (column 17, lines 60 – 65).

“automatically inputting the product key information read out... ”, Colosso discloses a pop-up window for the customer to enter a new activation key that is decrypted to match the key information, but does not teach that key information is input into the pop-up window from memory. However, Markus discloses automatic insertion of data read from memory into electronic forms and compares data from the user input with that stored in memory (column 5, lines 29 – 44). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify pop-up input window of the Colosso invention, which also contains a decryption means acting as a key matching function, with the auto form fill feature of the Markus invention, which also has an input information compare function to match input information, because one skilled in the art would want to maximize the speed and accuracy of the software program installation as taught by Colosso by automatically filling the correct key information rather than requiring the user to enter the information and possibly make a mistake.

None of the cited references disclose or use CMOS RAM as claimed. However, it is well known in the art that CMOS RAM is implemented in many computer systems, especially used to store parameters in low power battery-backed memory as disclosed in the Microsoft Computer

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Dictionary, Fifth Edition, p. 105. It would have been obvious to one skilled in the art at the time the invention was made to use CMOS RAM for the purpose of storing information because the configuration information could have been preserved in a battery back-up memory and available for use upon booting.

In regard to claim 12, incorporating the rejection of claim 11:

“...storing said product key information manually input...onto hard disk.” Colosso discloses that a user enters the program key information when initially installing the software program (column 9, lines 2 – 6; column 9, lines 40 – 50; column 16, lines 5 – 9).

In regard to claim 21, incorporating the rejection of claim 11:

“...program stored on a hard disk of a recovery disk drive.” See Colosso column 5, lines 15 – 42 for various computer readable media available in the Colosso invention.

In regard to claim 22, incorporating the rejection of claim 11:

“...program stored on a CD-ROM in a CD-ROM drive.” See Colosso column 12, lines 49 – 53.

10. Claims 13, and 15 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colosso, U.S. Patent 6,169,976 in view of Markus et al., 6,490,601, and further in view of Sobel, U.S. Patent 6,205,558 as applied to claim 12 above, and further in view of Ledain et al., U.S. Patent 6,021,408.

In regard to claim 13, incorporating the rejection of claim 12:

"Reading said product key information from said hard disk;" The relevant software products in the Colosso invention are stored on auxiliary memory (physical media – disk; see column 18, lines 6 – 10).

"Storing said encoded product key information...." Colosso teaches a means to store the software program on is stored on the computer system (column 6, lines 39 – 44, 55 – 59; column 8, lines 55 – 64). It is well known in the art that CMOS RAM is implemented in many computer systems, especially used to store parameters in low power battery-backed memory as disclosed in the Microsoft Computer Dictionary, Fifth Edition, p. 105.

"Encoding said product information using a compression conversion process..." Colosso teaches storage of product information entered by the user, but neither Colossos, Markus, nor Sobel teaches a compress conversion process of any information. However, Ledain teaches compression (encoding) of file and system information in a data storage subsystem (column 5, lines 37 – 61; column 6, lines 44 – 54). Operating system information and other application software information, including the product information, would be transparently compressed. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the software configuration system of Colosso with the compression feature of the Ledain invention because this modification would allow more information to be stored in a given space, thus allowing more efficient use of memory.

In regard to claim 15, incorporating the rejection of claim 13:

"...converting each ASCII character into six bit code;" Colosso teaches storage of product information entered by the user, but neither Colossos, Markus, Sobel nor Ledain teaches

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converting ASCII characters into six-bit code. Official notice is taken that conversion of ASCII code to hexadecimal format would have been well known to one skilled in the art at the time the invention was made. Therefore it would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Colosso regarding the storage of product information with the well known knowledge of converting ASCII characters into six-bit code in order for the Colosso system to store information in hexadecimal format.

"generating hexadecimal values for storage...by grouping the bits of the six bit codes corresponding to every four ASCII characters into three bytes." Colosso teaches storage of product information entered by the user, but neither Colossos, Markus, Sobel nor Ledain teaches generating hexadecimal values for storage by grouping the bits of the six bit codes corresponding to every four ASCII characters into three bytes. Official notice is taken that mapping ASCII values into x-length strings of bytes in memory would have been well known to one skilled in the art at the time the invention was made for data packing. Therefore it would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Colosso regarding the storage of product information with the well known knowledge of mapping ASCII values into x-length strings of bytes in memory in order for the Colosso system for data packing and more efficient memory use.

In regard to claim 16, incorporating the rejection of claim 15:

"..converting each ASCII character into a six bit code comprises subtracting the hexadecimal value 30h from the hexadecimal of the ASCII character." Colosso teaches storage of product information entered by the user, but neither Colossos, Markus, Sobel nor Ledain teaches converting each ASCII character into a six-bit code comprises subtracting the

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hexadecimal value 30h from the hexadecimal of the ASCII character. Official notice is taken that subtracting 30h from the hexadecimal value of the ASCII character to convert the ASCII character would have been well known to one skilled in the art at the time the invention was made. Therefore it would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Colosso regarding the storage of product information with the well known knowledge of subtracting 30h from the hexadecimal value of the ASCII character to convert the ASCII character in order for the Colosso system combined with the auto fill form of Markusto to display ASCII characters in the pop-up window.

In regard to claim 17, incorporating the rejection of claim 15:

“...reading preset hexadecimal values for each ASCII character from a code table and changing the read hexadecimal values to binary values.” Colosso teaches storage of product information entered by the user, but neither Colossos, Markus, Sobel nor Ledain teaches reading preset hexadecimal values for each ASCII character from a code table and changing the read hexadecimal values to binary values. Official notice is taken that using a hexadecimal to binary conversion lookup table would have been well known to one skilled in the art at the time the invention was made. Therefore it would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Colosso regarding the storage of product information with the well known knowledge of reading preset hexadecimal values for each ASCII character from a code table and changing the read hexadecimal values to binary values in order for the Colosso system combined with the auto fill form of Markus to more efficiently processed the code.

In regard to claim 18, incorporating the rejection of claim 13:

“...converting each ASCII character into six bit code;” Colosso teaches storage of product information entered by the user, but neither Colossos, Markus, Sobel nor Ledain teaches converting ASCII characters into six-bit code. Official notice is taken that conversion of ASCII code to hexadecimal format would have been well known to one skilled in the art at the time the invention was made. Therefore it would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Colosso regarding the storage of product information with the well known knowledge of converting ASCII characters into six-bit code in order for the Colosso system to store information in hexadecimal format.

“generating hexadecimal values for storage...by grouping the bits of the five bit codes corresponding to every three ASCII characters into two bytes.” Colosso teaches storage of product information entered by the user, but neither Colossos, Markus, Sobel nor Ledain teaches converting ASCII characters into six-bit code. Official notice is taken that generating hexadecimal values for storage by grouping the bits of the five bit codes corresponding to every three ASCII characters into two bytes would have been well known to one skilled in the art at the time the invention was made. Therefore it would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Colosso regarding the storage of product information with the well known knowledge of converting ASCII characters into six-bit code in order for the Colosso system to store information more efficiently than straight ASCII format.

In regard to claim 19, incorporating the rejection of claim 18:

“...reading preset hexadecimal values for each ASCII character from a code table and changing the read hexadecimal values to binary values.” Colosso teaches storage of product information entered by the user, but neither Colossos, Markus, Sobel nor Ledain teaches reading preset hexadecimal values for each ASCII character from a code table and changing the read hexadecimal values to binary values. Official notice is taken that using a hexadecimal to binary conversion lookup table would have been well known to one skilled in the art at the time the invention was made. Therefore it would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Colosso regarding the storage of product information with the well known knowledge of reading preset hexadecimal values for each ASCII character from a code table and changing the read hexadecimal values to binary values in order for the Colosso system combined with the auto fill form of Markus to more efficiently process the code.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colosso, U.S. Patent 6,169,976 in view of Markus et al., 6,490,601, and further in view of Sobel, U.S. Patent 6,205,558, and further in view of Ledain et al., U.S. Patent 6,021,408 as applied to claim 13 above, and further in view of Miura, U.S. Patent 6,021,408.

In regard to claim 14, incorporating the rejection of claim 13:

“...uninstalling said key input program from said hard disk after said storing step.”

Neither Colosso, Markus, Sobel, nor Ledain teaches deletion of the input program after the product information is stored. However, Miura teaches the deletion of a program after execution

(column 4, lines 29 – 33). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the configuration system of Colosso with the function of removing the key input program (installation program) after execution as taught by Miura invention, because this combination provides another level of security to the Colosso invention by preventing an unauthorized installation in the case when only one installation is allowed.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colosso, U.S. Patent 6,169,976 in view of Markus et al., 6,490,601, and further in view of Sobel, U.S. Patent 6,205,558, as applied to claim 11 above, and further in view of Pearce et al., U.S. Patent 6,243,468 (hereinafter referred to as Pearce).

In regard to claim 20, incorporating the rejection of claim 11:

Neither Colosso, Markus, nor Sobel teaches the checking of a checksum of stored key information. However, Pearce teaches the use of a checksum in associated with the product key information (column 2, lines 44 – 60). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the configuration system of Colosso with the checksum feature of Pearce, because the checksum provides a layer of error correction, and also security, by ensuring that the proper information is being used for the key product information, especially in a transmission download over a network as taught by Colosso (e.g., see Figure 2).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 6,578,199 B1 to Tsou et al., regarding the tracking of distributable software and the input of serial number at installation.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Shrader whose telephone number is (703) 305-8046. The examiner can normally be reached on M-F 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Lawrence Shrader
Examiner
Art Unit 2124

December 12, 2003

Lawrence Shrader

KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100